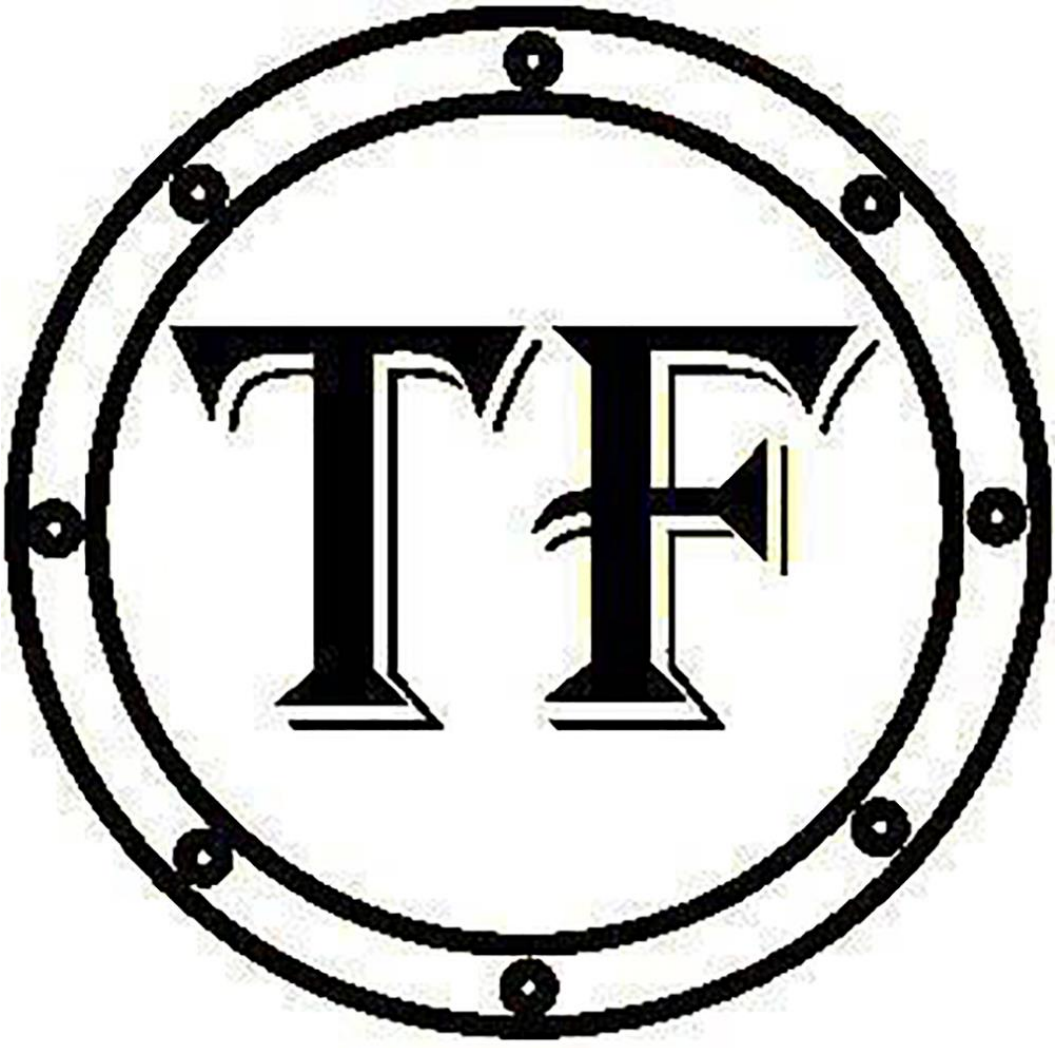
Threaded Flange

Threaded flanges, also sometimes referred to as companion flanges / screw flanges / NPT flanges, contain a female NPT thread in the center for connection to male NPT threaded piping.

It is worth noting that threaded flanges are common when creating reducing connections. Other thread styles are available for machining, aside from the standard NPT form as designated by the ASME B16.5 specification.



The most popular threaded flanges range in ½ inch to 6” nominal pipe size, but we are able to offer NPT threaded flanges up to 24” if necessary.

The amount of additional machining and labor hours which go into producing a larger diameter threaded connection make them less popular than a slip-on or weld neck configuration.

It may be of significantly beneficial use for an application which requires connecting and disconnecting from time to time. The male pipe end is joined to the flange without a weld connection required but can be sealed with a weld if necessary, especially for safety of pipe fittings.

This weld seal would defeat the purpose of a threaded flange as a structural option, as its primary advantage is to assemble and disassemble the connection.

For the purposes of pressure vessel equipment, the weld seal can be applied if the user is certain they would like to keep the pipe and flange assembly sealed permanently.

Threaded flange connections are often a requirement when a male NPT pipe connection is utilized and the media in question is highly reactive or explosive in nature, which is why NPT/threaded companion flanges are commonly utilized in API oilfield service.

This API 6A specification also allows for a male thread flange connection, but this is much less common than the female NPT in the center.

What is a threaded flange?

A threaded flange is a type of pipe flange that features internal threads on its bore, allowing it to be directly screwed onto the external threads of a pipe.

This design eliminates the need for welding, making it a convenient choice for pipes that cannot be welded, or in situations where welding is not desirable.

What are the advantages of threaded flanges?

Threaded flanges can be easily screwed onto a pipe without the need for welding or additional sealing methods, making them quicker and more straightforward to install or remove.

Threaded flanges are typically less expensive than welded or slip-on flanges, as they don't require welding labor or specialized equipment.

When should I use a threaded flange?

Threaded flanges are best used in applications where the pressure is not very high, as they are not designed to withstand the stresses associated with high-pressure systems.

For systems that need regular maintenance or replacement of parts, such as temporary piping installations or testing setups, threaded flanges allow for easy assembly and disassembly.

When should I not use a threaded flange?

Threaded flanges are not suitable for systems where high internal pressures are involved, as the threads may fail or leak under such stress.

In applications with significant vibration, threaded flanges may not hold securely over time, leading to loosening and potential leakage.

How do I install a threaded flange?

Clean the pipe threads and the inside of the flange to ensure a secure and leak-free connection. Align the threaded flange with the pipe and screw it onto the pipe's threaded end by hand until it is snug.

Use a wrench to further tighten the flange onto the pipe. Be careful not to over-tighten, as this can damage the threads or pipe. Optionally, use thread sealant or Teflon tape to prevent leaks in lower-pressure systems, ensuring a tight seal.